Johnson Controls
Who we are … by the numbers

Founded in 1885 Johnson Controls is today a Global Corporation with annual revenue in excess of $40 Billion and over 160,000 employees

Ranked 76th of U.S. Corporations & 267th Globally (2011)

#1 - 100 Best Corporate Citizens List (2011)

#14 - America’s Greenest Companies (2011)

7th consecutive year – Named to Dow Jones Sustainability Indexes
Johnson Controls
Our Business

Automotive Experience
Johnson Controls Automotive Experience is a global leader in automotive seating, overhead systems, door and instrument panels, and interior electronics.

Power Solutions
Johnson Controls Power Solutions is the global leader in lead-acid starter batteries, advanced lead-acid batteries for Start-Stop vehicles and Lithium-ion batteries for hybrid and electric vehicles.

Building Efficiency
Johnson Controls Building Efficiency helps people achieve by delivering products, services and solutions that increase energy efficiency and lower operating costs in buildings for more than one million customers.
Building Efficiency

Our Capabilities

- **OUR PRODUCTS & TECHNOLOGY**
  - Building Automation Systems
  - Energy Efficient Equipment
  - Building System Integration
  - Equipment Retrofits

- **OUR TECHNICAL SERVICES**
  - Equipment Maintenance & Repair
  - Facility Management & Operations

- **GREEN BUILDING DESIGN & RETROFITS**
  - Energy Performance Contracting
  - Renewable Energy

- **REAL ESTATE & WORKPLACE**
  - Energy & GHG Data Management
  - Real Estate Management

- **OUR PROJECTS**
  - On-Site Renewable Energy

- **OUR ADVISORY SERVICES**
  - Sustainability Strategy & Communications
  - Building Integration Systems
  - Green Building Design & Retrofits

- **Our Capabilities**
  - Equipment Maintenance & Repair
  - Facility Management & Operations
  - Sustainability Strategy & Communications
  - Building Integration Systems
  - Green Building Design & Retrofits
Building Efficiency
Business Portfolio

Building Efficiency

Energy Solutions
- Performance Contracting
- Whole building retrofits
- Energy Services
- Demand Response
- Renewables

Global WorkPlace Solutions
- Portfolio Based LifeCycle Philosophy
- Integrated Real Estate and Facility operations
- Enable work

Service
- Building Control Systems
- HVAC Mechanical
- O&M Services

Systems
- Building Control Systems
- HVAC Mechanical
- Fire & Security Systems Integration

Refrigeration
- Industrial
- Navy / Marine
- Snow
What is Energy Performance Contracting?

- Reduce energy usage
- Reduce water usage
- Reduce operating and maintenance costs
- Reduce emissions
- Reduce waste

In short, **Performance Contracting** is a procurement tool that allows you to leverage the savings you get from making building improvements in order to pay for the improvements.
What is Energy Performance Contracting?

NET CASH FLOW SAVINGS

- Guaranteed Project outcome
- No Up-Front Capital Required
- No Increase in the Budget
- Enables Decreases in Indirect Expenditures

Performance Contracting – Customer keeps the full savings

Note: this is for illustrative purposes
Typical Project Offerings

- Lighting upgrades
- Building management systems
- Water conservation measures
- Temperature controls
- Chiller and boiler upgrades
- Facility repairs and upgrades
- Renewable energy
- Building envelope
- Wireless infrastructure
- Campus engagement programs
- GHG reduction planning
- Master energy Planning
- Fans, air distribution and A/C
- Central plants
- Information systems
- Computer Power Management
- Fire & Safety systems
- One-card systems
- LEED certification
- Facilities support / management
Approach Is Not For Everyone

- Some organizations choose to self-execute work
- Strong internal teams (PE’s on Staff)
- Access to capital is readily available
- Protective of internal processes
- Minimal Amount of Deferred Maintenance
Case Study - Tulane University

- Post Hurricane Katrina
- Helped Restore Power and Mechanical Systems in Over 40 Buildings
- Expanded Central Plant and Implemented Energy Management Strategies Across Campus
- Natural Gas Consumption Reduced 43% Carbon Dioxide Emissions reduced 37% annually
- $71M saved over 12 years
- Guaranteed Savings
Case Study - Empire State Building

- Commercial Application
- Reduced Energy by 20% Saving $4M A Year
- Filling the existing windows with an energy saving gas and adding an additional plastic pane.
- Upgrading the building's cooling system.
- Using computerized "smart" energy management technology that can adjust temperatures floor by floor.
- Provide tenants with detailed energy use in their space.
Creative Solutions

- Smart Grid Technologies
- Demand Response (PJM Territory)
- Municipal Solutions: Wastewater Treatment, Traffic Lights, Water Meters
- Advanced Lighting Solutions: LED Applications, Lighting Controls, Daylight Harvesting
- Renewable Applications: Can Be Tied to Incentives
Financial Solutions

- Tax Exempt Lease Vehicle
- Qualified Energy Conservation Bonds: Ohio Air Quality Development Authority
- Ohio Department of Development- Industry Projects
- EPAAct Tax programs
- Property Assessed Clean Energy (PACE) or New Market Tax Credits*
- Third Party Partnerships/Power Purchase Agreements (PPA)

* There can be political uncertainty and timing implications associated with these approaches
Thank You

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